

## SSLC Examination 2025-26 Answer Key

### Mathematics

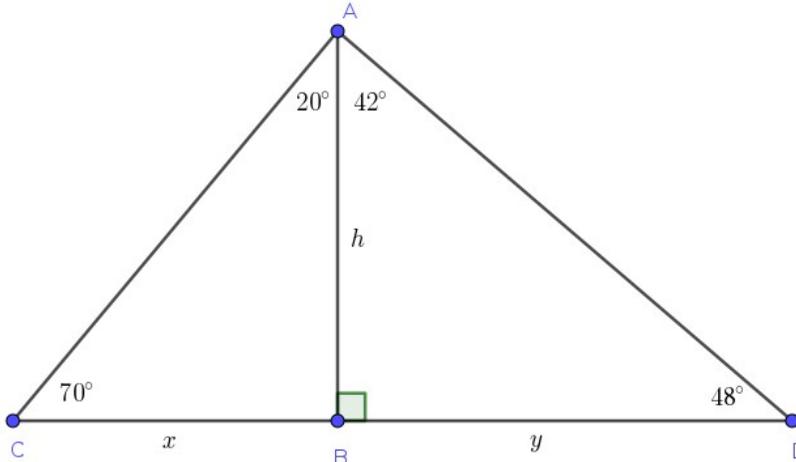
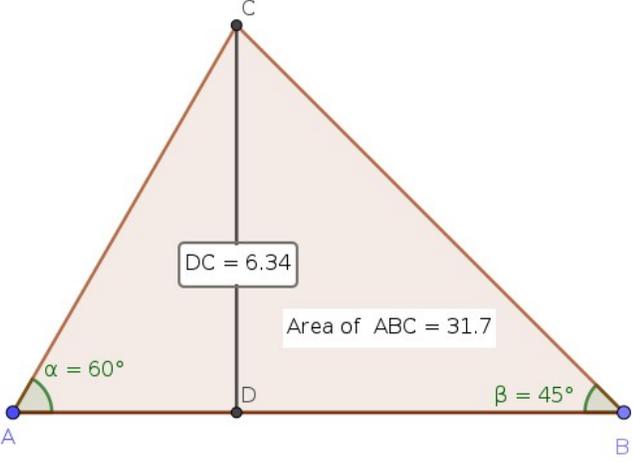
Qn No	Sub Qn	Detailed Answer	Score
1	b	7, 12, 17...	1
2	d	20	1
3	b	(0, 2)	1
4	a	42	1
5	d	$4n+2$	1
6	b	4	1
7	c	Both the statements are true, statement 2 is the reason for 1	1
8	c	(ii) and (iii) are true	1
9		Probability that the point is inside shaded region $\frac{240}{360} = \frac{2}{3}$	2
10 A		There are 900 three digit numbers	
	a	$P(\text{all digits are same}) = 9/900 = 1/100$	1
	b	$P(\text{multiple of 5 less than 200}) = 20/900$	2
10 B		There are $4 \times 3 = 12$ pairs	
	a	$P(\text{Product is prime}) = 1/12$	1
	b	$P(\text{multiple of 7}) = 3/12$	2
11		$X_{15} = 140 + 40 = 180$	1
		$X_3 = 100 - 40 = 60$	1
12 A	a	$X_2 = \frac{30}{3} = 10$	1
	b	$X_4 = \frac{140}{7} = 20$	1
	c	5, 10, 15	2

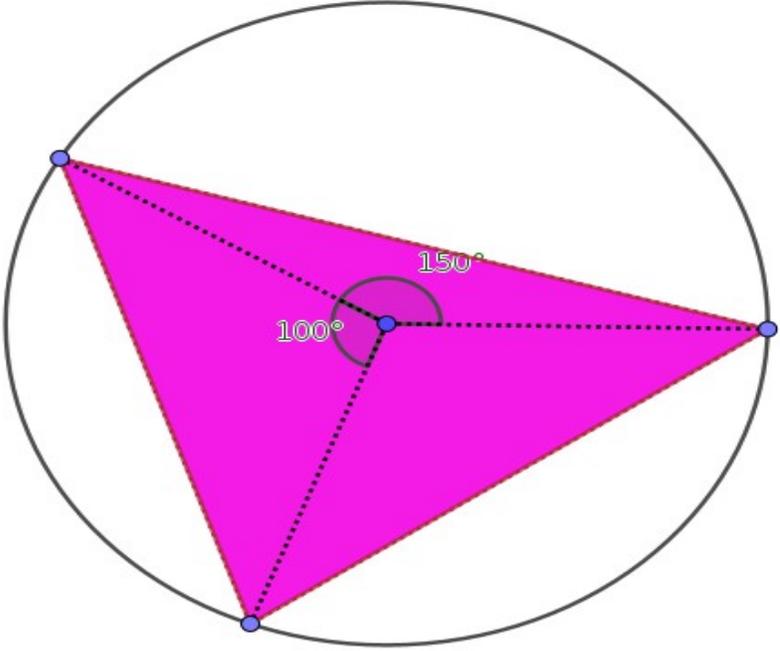
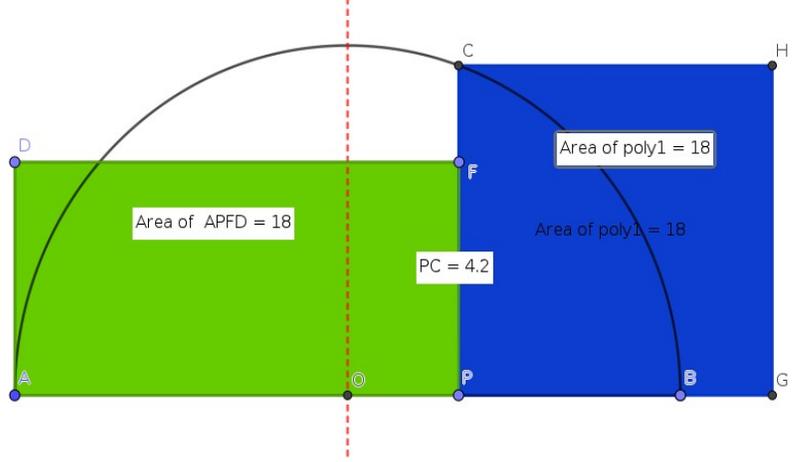
## S 3030 & 3031

12 B	a	$X_4 + x_{22} = 70$	1
	b	$X_{13} = 35$	1
	c	$S_{25} = 25 \times 35 = 875$	2
13	a	23 <sup>rd</sup> position	1
	b	$X_{20} = 60 + 0.5 = 60.5$	2
	c	$X_{23} = x_{20} + 3d = 60.5 + 3 = 63.5$	2
14	a	$C(6, 4)$	1
	b	$(12-5, 8-2) = (7, 6)$	2
15	a	$(4, 0)$	1
	b	$2\sqrt{3}$	1
	c	$(2, 2\sqrt{3})$	1
16A	a	$(4, 7)$	1
	b	$\sqrt{5}$	1
	c	$(x-4)^2 + (y-7)^2 = (\sqrt{5})^2$	2
16B	a	Slope = $2/6 = 1/3$	1
	b	$x - 3y = -12$	2
	c	$(6, 6)$ or if $(x, y)$ is a point on this line then another point is $(x+3, y+1)$	1
17	a	Sides are $x$ and $x+30$	1
	b	$x(x+30) = 351$ $(x+39)(x-9) = 0$  $x = -39$ or $9$ sides are $9$ and $39$	2
17 B		Sum = $4$ product = $2$  $(2+\sqrt{2}), (2-\sqrt{2})$	1  2
18	a	$1, 5, 9, 13, \dots$	1
	b	Yes, its an arithmetic sequence	1

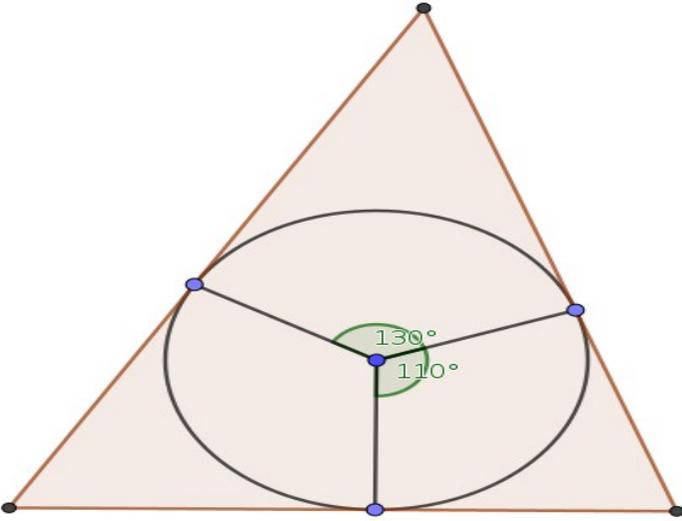
## S 3030 & 3031

	<b>c</b>	$3, 7, 11, \dots \Rightarrow x_n = 4n - 1$	<b>2</b>
<b>19A</b>	<b>a</b>	Sum of first 7 terms = $49 + 42 = 91$	<b>1</b>
	<b>b</b>	$n^2 + 6n = 315$ $n^2 + 6n + 9 = 324$ $(n+3)^2 = 18^2$ $n = 15$	<b>3</b>
<b>19B</b>	<b>a</b>	$x_n = 6n - 1$	<b>1</b>
	<b>b</b>	$S_{15} = 15/2(5+89) = 15 \times 47 = 705$	<b>2</b>
	<b>c</b>	$S_n = 3n^2 + 2n$	<b>1</b>
<b>20</b>	<b>a</b>	$x^2 - 12x + 32 = (x-8)(x-4)$	<b>3</b>
	<b>b</b>	$x^2 - 12x + 32 = 0 \Rightarrow x = 8, x = 4$	<b>1</b>
<b>21</b>	<b>a</b>	$\angle ADB = 25^\circ$	<b>1</b>
	<b>b</b>	$\angle A = 40^\circ \quad \angle B = 115^\circ \quad \angle C = 25^\circ$	<b>3</b>
<b>22</b>		$Area = \frac{1}{2} \times 8 \times 5 \times \sin 40 = 12.8 \text{ cm}^2$	<b>4</b>
<b>23 A</b>		Volume of the cylinder = $\pi \times 8 \times 8 \times 15 = 960 \pi$  Volume of the cone = $\frac{1}{3} \times \pi \times 6 \times 6 \times 8 = 96 \pi$  number of cones = 10	<b>5</b>
<b>23 B</b>		Base edge = 18 height = 12 slant height = 15  $TSA = 18^2 + 2 \times 18 \times 15 = 864 \text{ cm}^2$  $Cost = 864/10000 \times 500 \times 120 = \text{Rs } 5,184$	<b>5</b>

<p>24A</p>	 <p> <math>X = h \tan 20</math> , <math>y = h \tan 42</math>  <math>x+y = 40</math>  <math>h = \frac{40}{\tan 20 + \tan 42} = 31.74 \text{ m}</math> </p>	
<p>24B</p>	 <p> <math>DC = 6.34</math>          Area of <math>ABC = 31.7</math>  <math>\alpha = 60^\circ</math> , <math>\beta = 45^\circ</math> </p>	

<p>25</p>		<p>4</p>
<p>26</p>		<p>4</p>

27



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